TOP SECRET

IMAGERY
ANALYSIS
DIVISION

PIR

PHOTOGRAPHIC INTELLIGENCE REPORT

[redacted]

LIQUID ROCKET ENGINE TEST FACILITY

OMSK, USSR

Declassification Review by NIMA/DoD

[redacted] 25X

25X

CIA/PIR 61115

[redacted]

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CIA/PIR-61115

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LIQUID ROCKET ENGINE TEST FACILITY

OMSK, USSR

TOP SECRET [redacted] 25X1

USSR

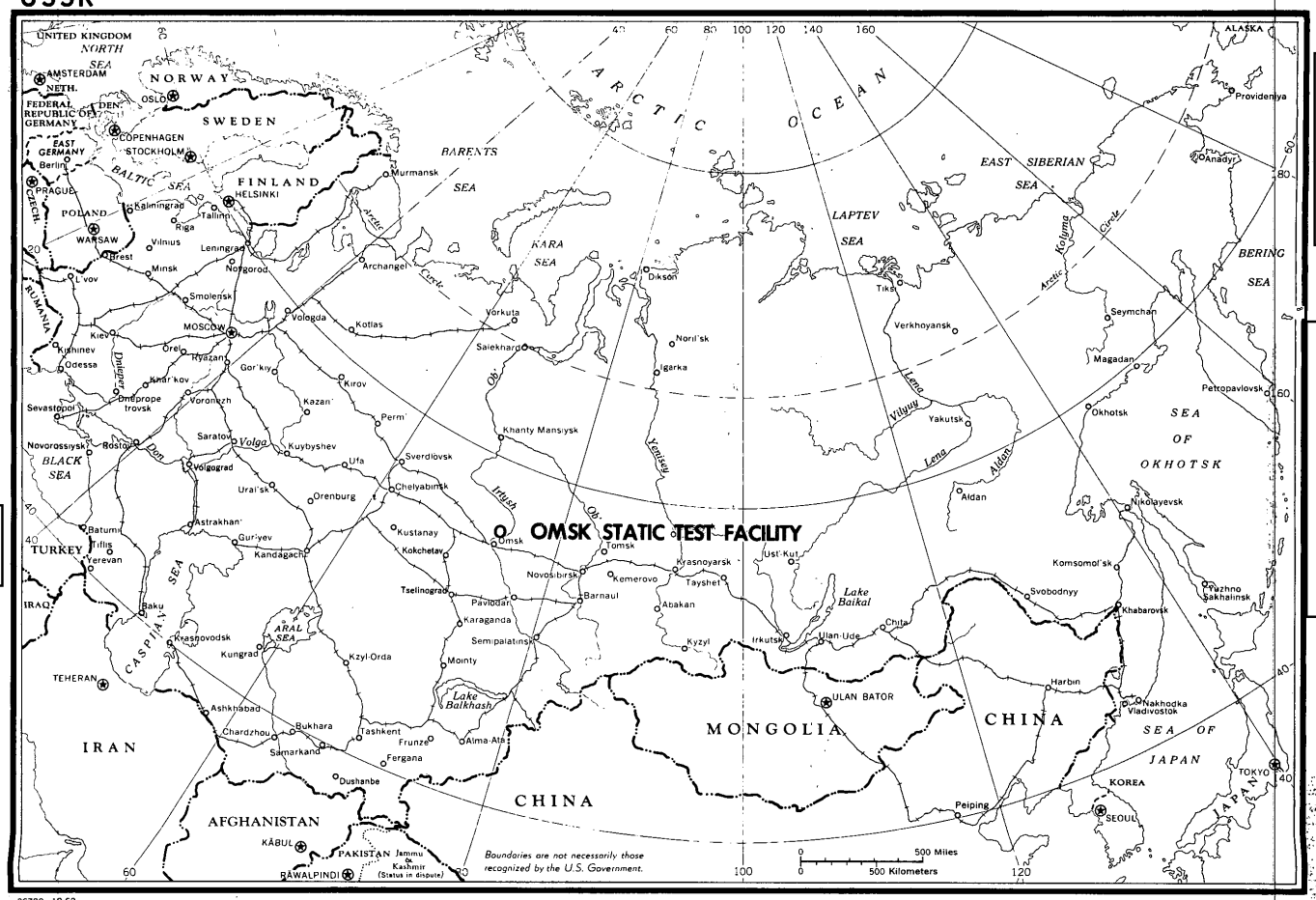

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FIGURE 1.

[redacted] 25X1

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SUMMARY

The Omsk Liquid Rocket Engine Static Test Facility ([redacted]) is located at 55-25N 73-17E, 29 nautical miles (nm) north of Omsk and 2 nm south of the village of Gornaya Bitiya (Figures 1 and 2). It is positioned on the southeast side of the Irtysh River, a major tributary of the OB. The facility was first observed on [redacted] at which time it was under construction. Numerous subsequent coverages permit the establishment of accurate construction chronologies for major portions of the installation. 25X1

The facility, served by a rail line which extends north from Omsk, consists of three functional areas designated as follows: the operations area, the housing area, and the construction support area (Figure 2). The rail line serving the facility divides into two branches just south of the construction support area, with one branch serving the support area and the other continuing into the operations area. An all-weather road also interconnects all three areas of the facility. Two vertical test stands in the operations area are the primary features at this installation. Vertical Test Stand No. 1 encloses a single test position which is believed to have been operational since the fall of [redacted] while Vertical Test Stand No. 2, still under construction, appears to be a two-positioned structure. 25X1

X1 Since the fall of [redacted] construction in the housing area has consisted mostly of two and three story apartment buildings.

At the Construction Support Area, activity in support of construction at the operations and housing areas has been evident, but no expansion has X1 taken place since [redacted]

OPERATIONS AREA (Figures 3 and 4)

The operations area is served by four spurs from the branch rail line and also by the main access road from the housing and support areas. Most of the buildings are located within a double wire fence; however, administration, construction, support, and certain miscellaneous buildings are outside of the secured area. Within the fenced area are 34 buildings with a total floor space of approximately 174,000 square feet. Including those buildings outside the fence line, the entire area contains 44 buildings with a total floor space of approximately 236,000 square feet. Eight buildings were complete on or before [redacted] The rest were 25X1

[redacted] 25X1

FIGURE 2. OMSK STATIC TEST FACILITY.

25X

25X

completed by , with the exception of Vertical Test Stand No. 2 and its associated control buildings. The operations support buildings and structures are listed in detail on Table 1 and keyed to Figure 4.

Certain observations are of interest in discussing the operations area.

1. Building No. 5 has an extremely large amount of available floor space (with no less than eight large stacks protruding from its multi-leveled roof. This suggests a heat treatment plant with the possibility existing of a small foundry being at one end. There is a similar building in the operations area at Krasnoyarsk Static Test Facility.

2. Building No. 8, which is immediately adjacent to Building No. 5, is a large drive-through building, which measures high, is probably used for the assembly of components.

3. Building No. 3 has a possible connection with four large underground tanks of undetermined usage, located nearby.

4. In there was a large secured area near the southwest edge of the operations area containing ten identical buildings measuring As of only two of these buildings remained (Figure 4, Annotation 1) and the security fence had been partially removed. These buildings were probably used to house construction personnel while the area was in an early stage of development.

Vertical Test Stand No. 1 (Figures 5 and 6)

This single position test stand is located on the south side of a deep ravine in the northeast section of the operations area. The super structure of Vertical Test Stand No. 1 measures 50 by 90 feet and is approximately 135 feet high. Access to the stand is via a 25-foot wide approach ramp which approaches from the south and enters the northwest side of the stand approximately 50 feet above the base; access to the base of the stand is by the original construction road. Two large pipes approximately in diameter and positioned above the access ramp are connected to the side and back of the stand. These pipes angle away from the access ramp and appear to enter the ground approximately 235 feet away, near a small building. These pipes may carry water for the cooling of the blast deflector or could be steam lines for simulated high altitude testing.

An observation/control building, measuring feet and situated east of the stand, has six windows on the westerly side apparently for test observation purposes. Two large probable control cable troughs

extend from the base of the observation building to a point midway up the east side of the stand. In close proximity to the stand are various assembly, checkout, and support buildings.

Construction roads to the test stand site were evident [redacted]. However, the first indication of the stand superstructure appeared on [redacted]. The stand appeared to be complete on [redacted]

Vertical Test Stand No. 2 (Figures 7 and 8)

Vertical Test Stand No. 2, which is still under construction, is located approximately 900 feet east of Vertical Test Stand No. 1. This second stand measures [redacted] and is approximately 125 feet high. Two access ramps approach the stand from the rear and run along the east and west sides. These ramps join the stand approximately 40 feet above the base of the structure and their presence indicates the existence of two test positions. A large pipeline entering the rear of the stand midway between the two access ramps appears to originate at a possible pump house approximately 1,450 feet south of the stand and may be a water line to cool the blast deflector or a steam line for simulated altitude testing. The latter is taken into consideration due to the proximity of the heat plant to the possible pump house (Figure 4, Buildings 22 and 23).

In close proximity to Vertical Test Stand No. 2 is an observation/control building measuring [redacted] feet. It is situated [redacted] east of the test stand on the side of the excavation and appears to be connected to the stand by cable troughs similar to those observed at stand No. 1.

Excavation for stand No. 2 was begun between [redacted] (Mission [redacted] the superstructure was readily discernable. As of [redacted] the stand appeared to be approaching completion; however, several observations lead to the conclusion that the stand was not operational at that time.

1. The blast deflector closest to Vertical Test Stand No. 1 appeared to still be under construction.

2. Access roads to the stand appeared to be unimproved as of [redacted]

3. Construction support buildings and materials remain evident throughout the area.

4. No sign of a blast mark at the completed deflector has been observed.

If the existing support buildings for stand No. 1 are utilized, the stand could be used by late

HOUSING AREA (Figures 9 and 10)

The housing area is located approximately three miles due south of the test facility. Within the area are 101 buildings with a total floor space for living quarters of square feet. An additional square feet of floor space is used for administration, storage, support, schools, and a heat plant.

This area is not rail served, but utilizes the main road net for access. Vehicles of approximately 25 feet in length, possibly buses, have been observed enroute between the motor pool at the operations area and the housing area.

Five different types of housing are in evidence at the Omsk Facility.

1. Fifty-five (55) duplex and four single units account for square feet of living space. Twelve of the duplex units were present on , 42 more were constructed by , and the remaining one was complete on . The four single units were complete before . No additional duplex or single units have been erected since that time.

2. Twenty-one (21) single story apartment units account for square feet of living area. Twenty of the twenty-one units were completed between

3. Thirteen (13) two-story apartments account for square feet of living space. Ten of these units were complete by with the remaining three completed by

4. Ten (10) three-story apartment houses account for 239,940 square feet of living area. The first two units were completed by , and the additional units have been added since that time. The last unit was complete by . There is evidence of additional apartment construction to the north of the housing area.

The removal of early construction support buildings as mentioned in the operations area has also been observed in the housing area (Figure 9).

CONSTRUCTION SUPPORT AREA (Figures 11 and 12)

The construction support area lies 3 nm southeast of the operations area via the main access road. No security fencing is visible at the area. The area is served both by the eastern branch of the rail line and by the main access road from the housing and operations area.

Nineteen (19) buildings and structures in the area account for square feet of floor space. 25X The buildings, most of which appear to be for storage, are single story structures clustered near the rail spur and main access road. A cement batch plant is also located in the area (Figure 12, Items 12, 13, and 14). Extensive use has been made of open storage areas between the rail spur and the main access road (Figure 11). The major portion of this area was complete by with 25X two additional units being completed by and 25X one final structure being erected as late as 25X

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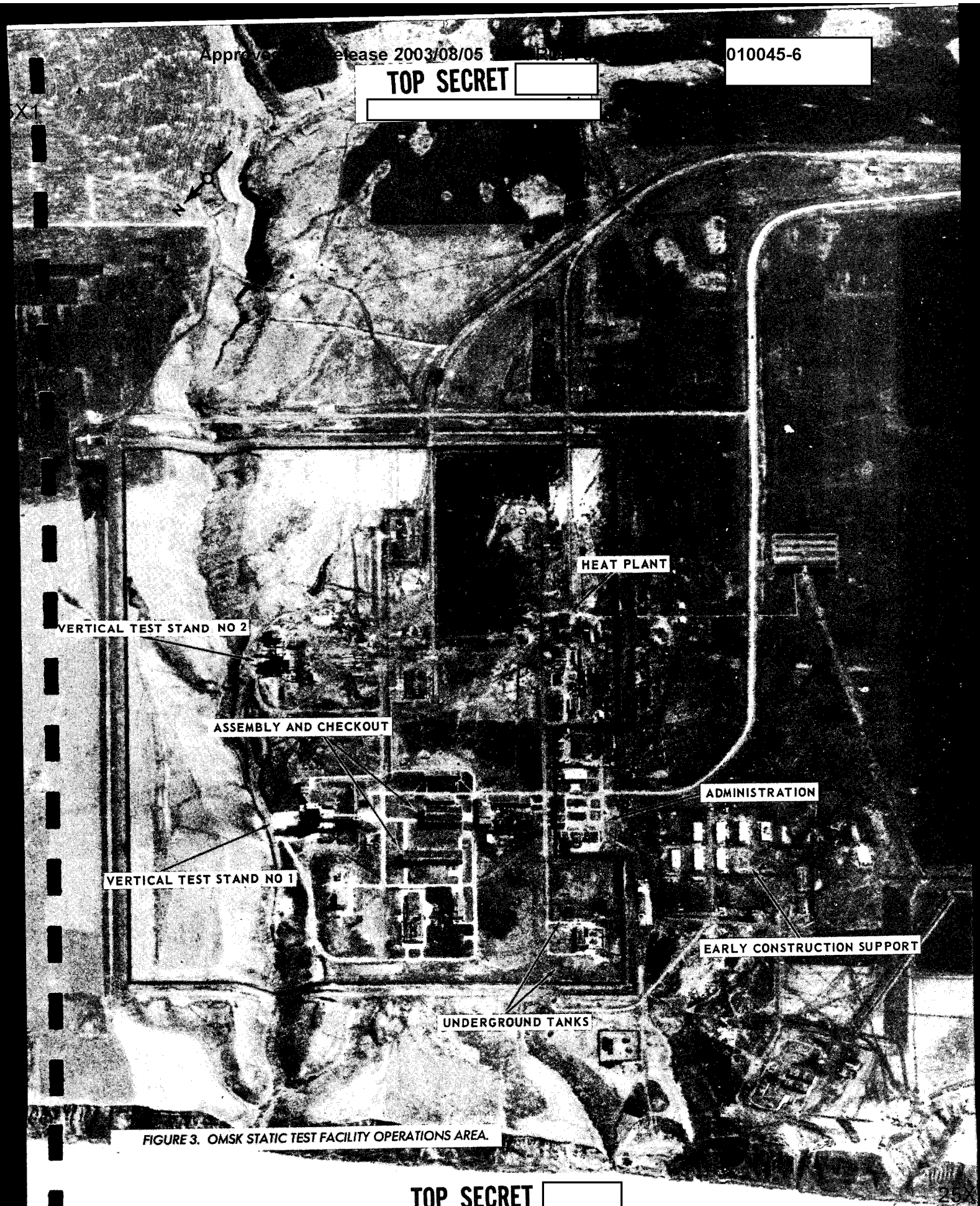

FIGURE 3. OMSK STATIC TEST FACILITY OPERATIONS AREA.

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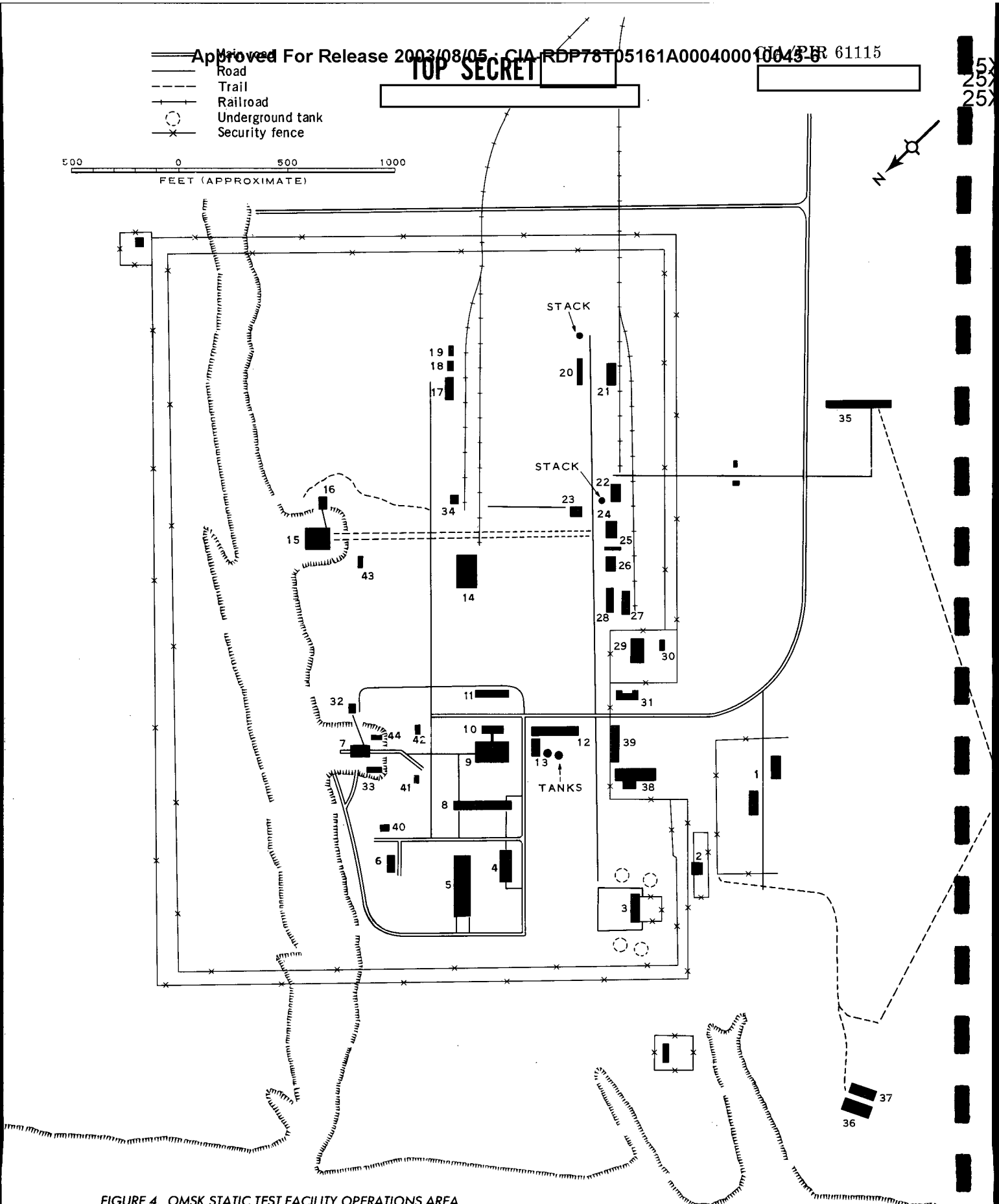

FIGURE 4. OMSK STATIC TEST FACILITY OPERATIONS AREA.

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TABLE 1

OMSK STATIC TEST FACILITY

Operations Area

Building	Length (feet)	Width (feet)	Height (feet)	Total Flr. Space (sq. ft.)	Date First Observed (Complete)	Function of Building
1 (2)						Construction Support
2						Possible Barracks
3						Undetermined
4						Assembly Checkout
5						Heat Treatment Plant and Foundry
6						Undetermined
7						Vertical Test Stand 1
8						Assembly Checkout
9						Assembly Checkout
10						Assembly Checkout
11						Assembly Checkout
12						Undetermined
13						Undetermined
14						Support
15						Vertical Test Stand 2 u/c
16						Control for Vertical Test Stand No. 2
17						Receiving and Storage
18						Receiving and Storage
19						Receiving and Storage
20						Receiving and Storage
21						Receiving and Storage
22						Heat Plant
23						Poss. Water Pump House
24						Receiving and Storage
25						Receiving and Storage
26						Receiving and Storage
27						Receiving and Storage
28						Receiving and Storage
29						Prob. Motor Pool
30						Prob. Motor Pool
31						Administration
32						Control for Vertical Test Stand No. 1
33						Control Associated
34						Support
35						Support
36						Support
37						Support
38						Administration
39						Administration
40						Undetermined
41						Control Associated
42						Poss. Nitrogen Cylinder
43						Control Associated
44						Control Associated

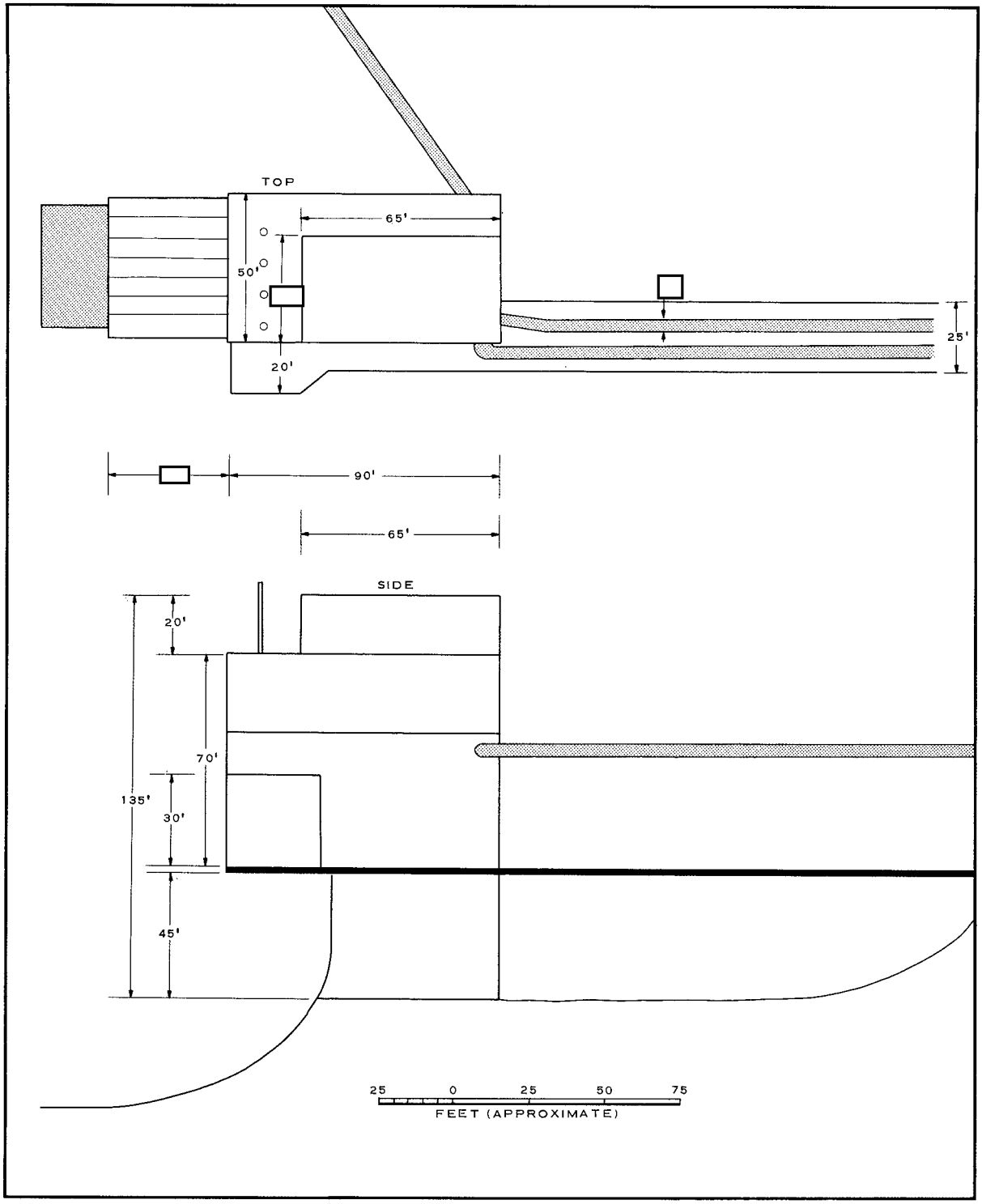

FIGURE 5. VERTICAL TEST STAND NO 1, OMSK, USSR.

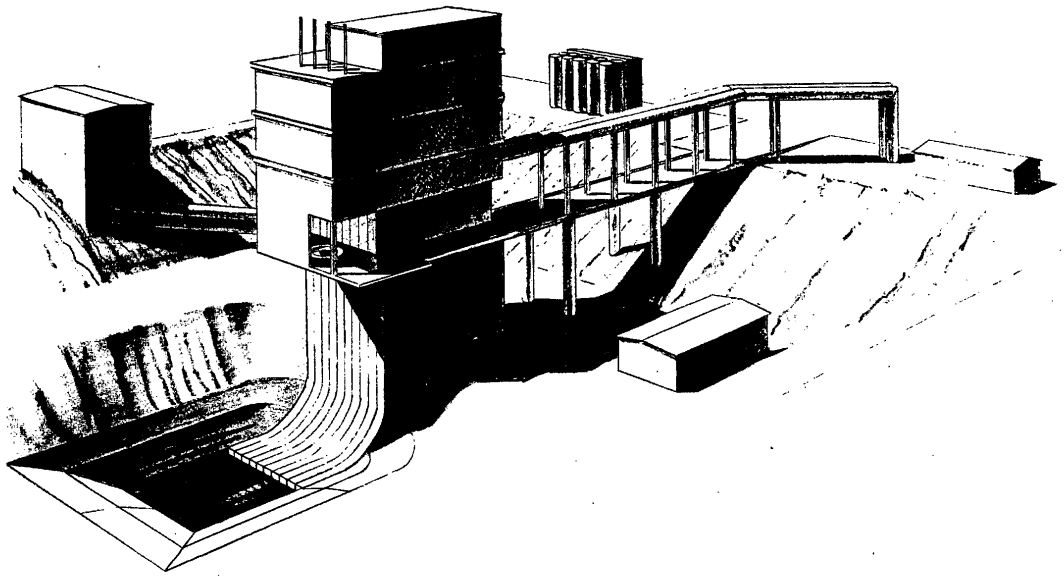

FIGURE 6. VERTICAL TEST STAND NO 1, OMSK, USSR.

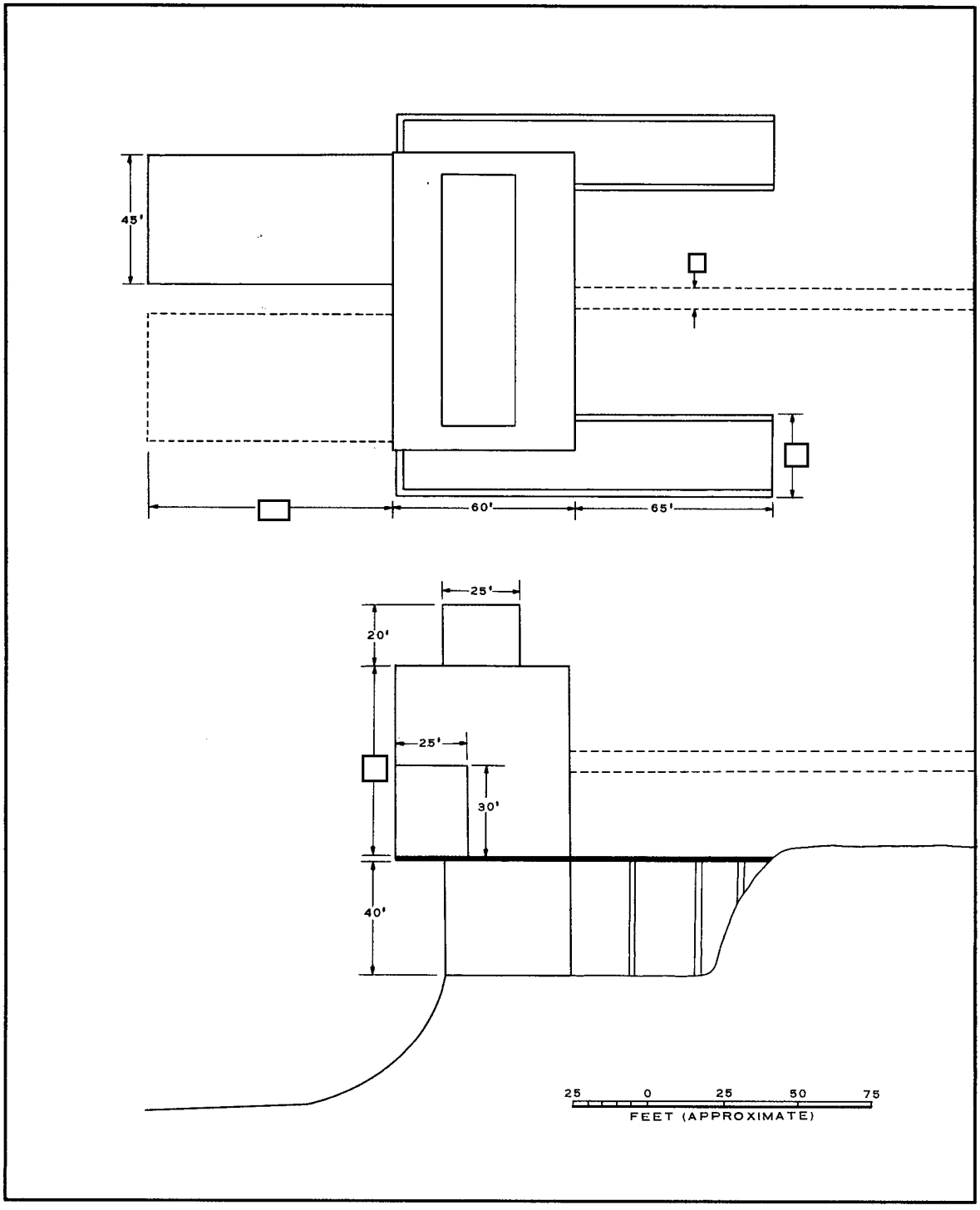

FIGURE 7. VERTICAL TEST STAND NO 2, OMSK, USSR.

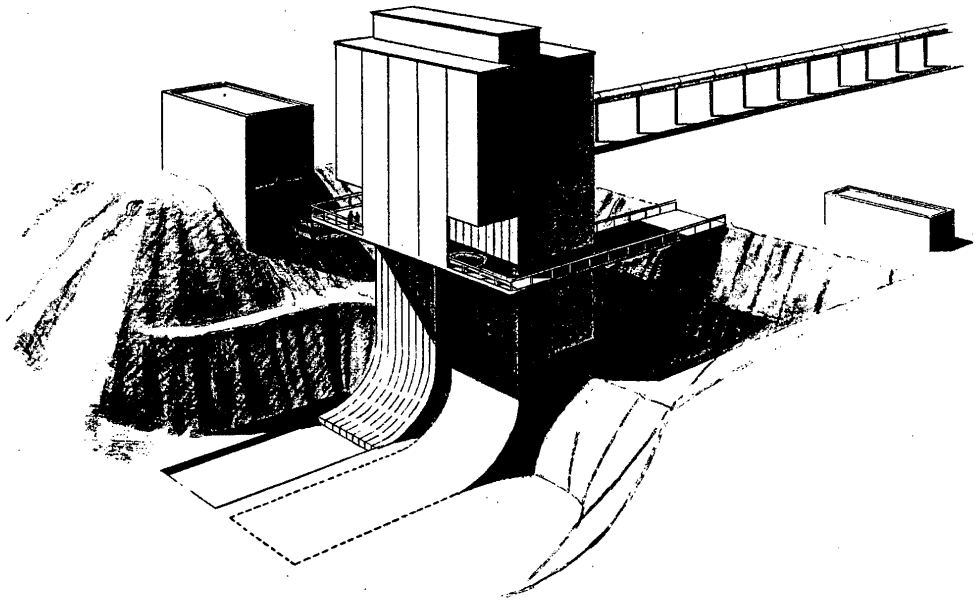

FIGURE 8. VERTICAL TEST STAND NO 2, OMSK, USSR.

FIGURE 9. OMSK STATIC TEST FACILITY HOUSING AREA

X1

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25X1

25X1

Main road
Road
Trail
Security fence

500 0 500 1000
FEET (APPROXIMATE)

STACK

IRTYSH RIVER

N

FIGURE 10 OMSK STATIC TEST FACILITY HOUSING AREA.

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TABLE 2

OMSK STATIC TEST FACILITY

Housing Area

Building	Length (feet)	Width (feet)	Single Unit (sq. ft)	Total Flr. Space (sq. ft)	Date First Observed (complete)	Function of Building
1	(24)					Duplex Housing
2						Storage
3						Storage
4						Storage
5						Storage
6						Storage
7						Storage
8						Storage
9						Storage
10	(12)					Duplex Housing
11						Administration
12						Single Story Apartment
13						Single Story Apartment
14	(5)					Construction Support
15	(2)					Construction Support
16	(4)					Single Story Apartment
17	(5)					Single Story Apartment
18						Single Story Apartment
19						Single Story Apartment
20						Support
21						Single Story Apartment
22						Single Story Apartment
23	(4)					Single Story Apartment
24	(9)					Two Story Apartment
25						Two Story Apartment
26	(2)					Two Story Apartment
27	(10)					Three Story Apartment u/c from 1 Oct 62-6 Feb 66
28	(2)					Duplex Housing
29	(4)					Duplex Housing
30						Duplex Housing
31						Two Story Apartment
32						Support
33						Heat Plant
34						Support
35						Support
36						Administration
37						Support
38						Support
39						Support
40						Single Story Apartment
41	(12)					Duplex Housing
42	(4)					Single Unit Houses
43						Possible School

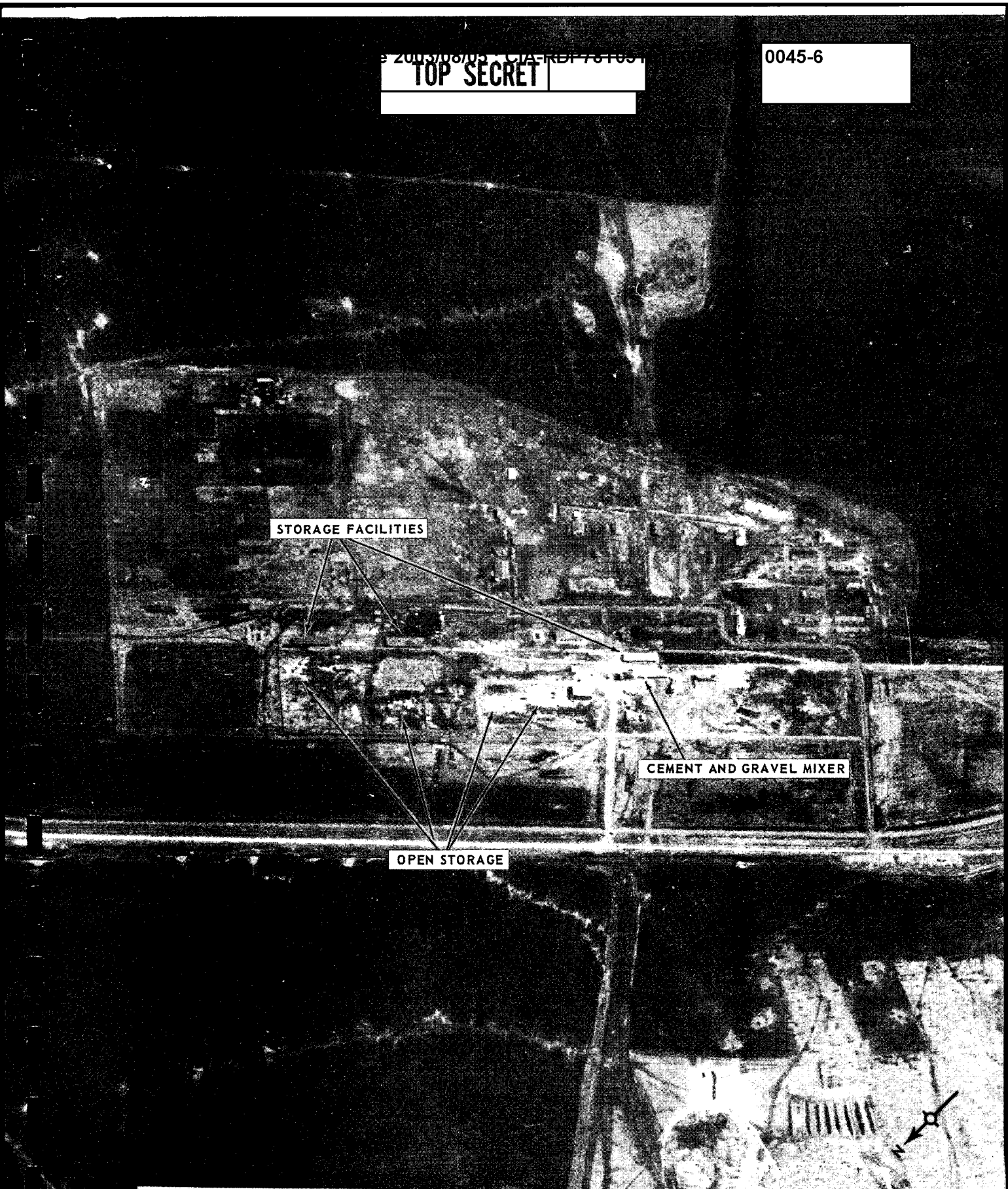


FIGURE 11. OMSK STATIC TEST FACILITY CONSTRUCTION SUPPORT AREA.

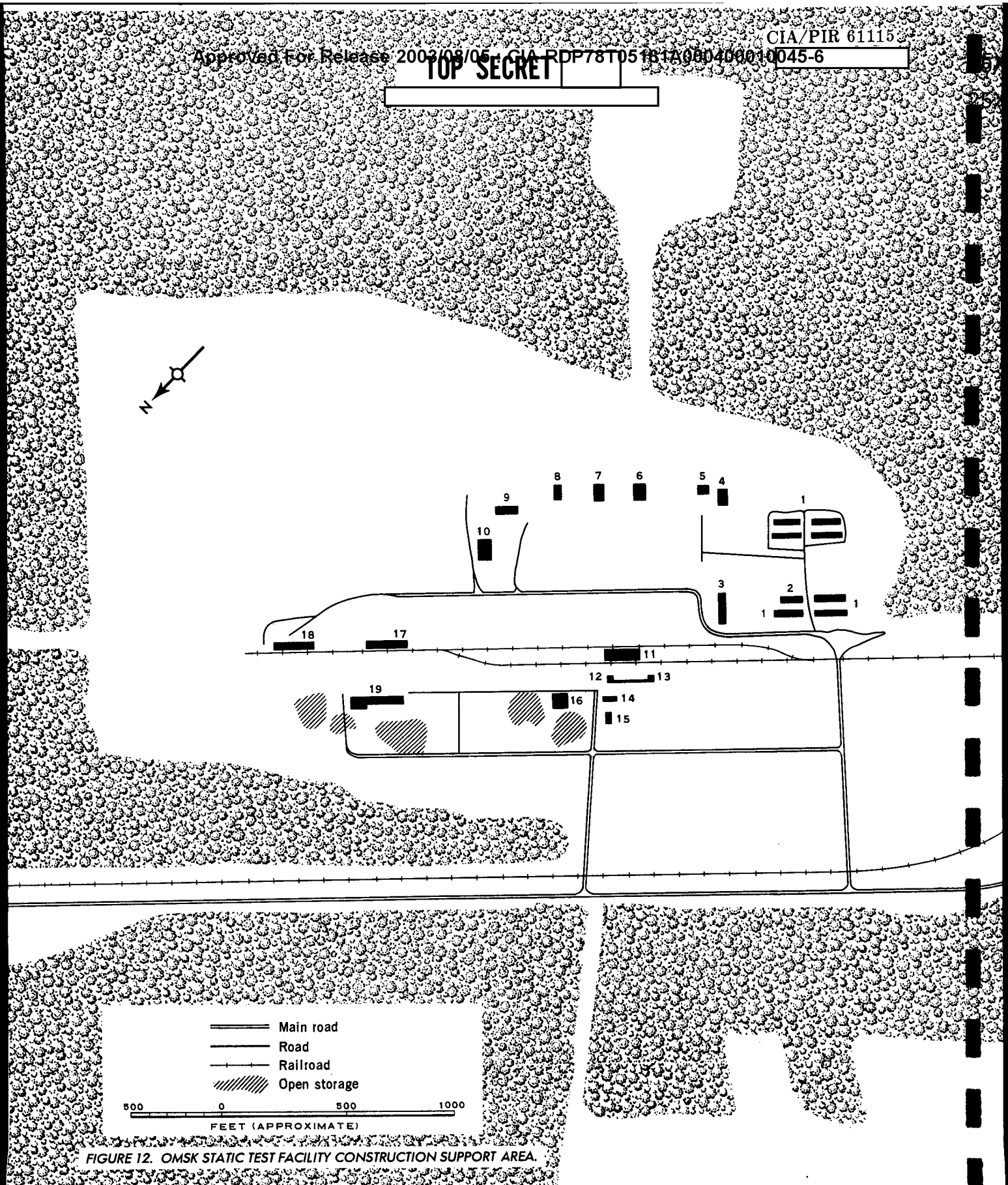


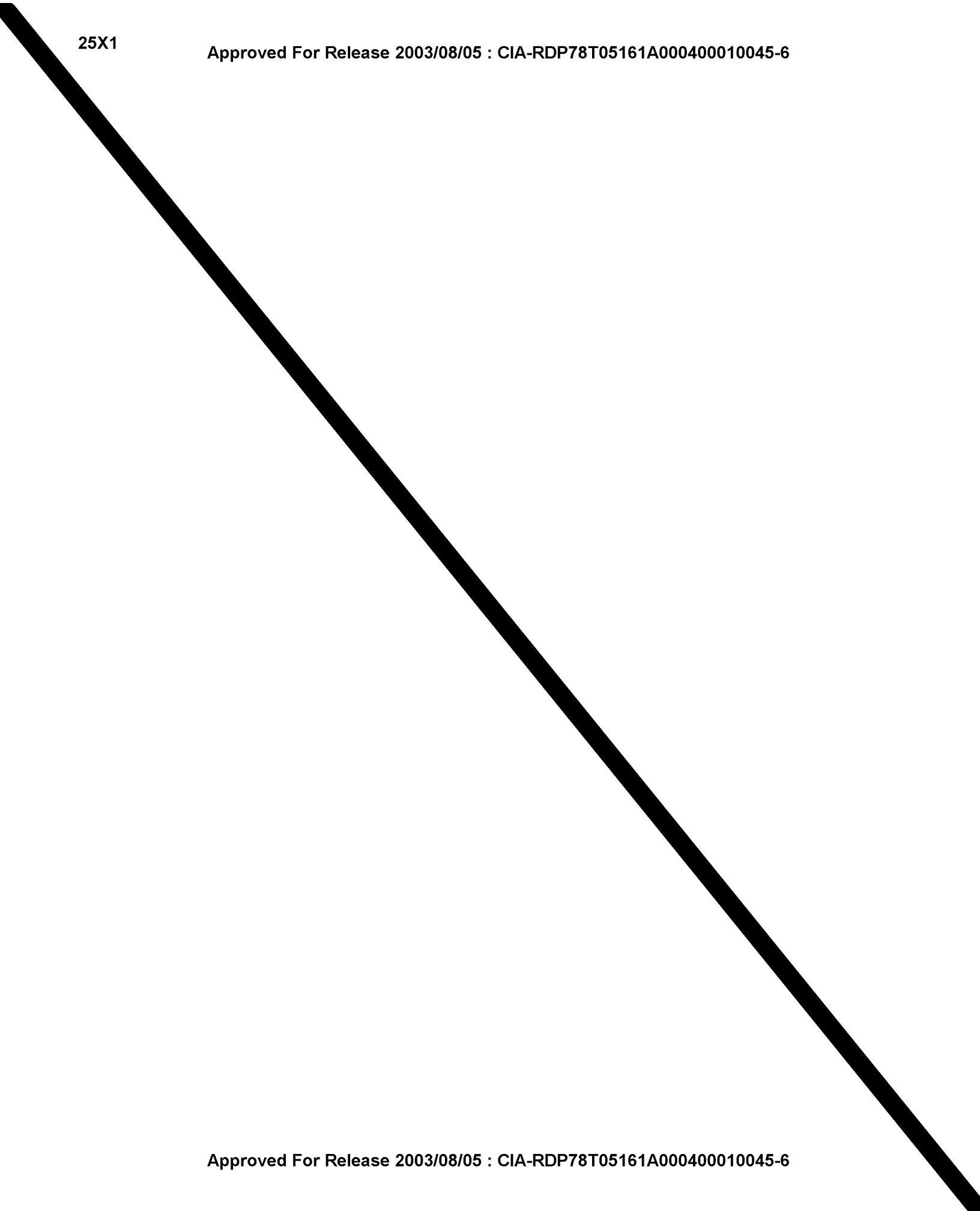
FIGURE 12. OMSK STATIC TEST FACILITY CONSTRUCTION SUPPORT AREA.

TABLE 3

OMSK STATIC TEST FACILITY

Construction Support Area

Building	Single / Total Flr.	Date First	Function of Building
1 (7)			Storage
2			Storage
3			Storage
4			Storage
5			Storage
6			Storage
7			Storage
8			Storage
9			Storage
10			Storage
11			Receiving and Storage
12			Cement & Gravel Mix
13			Cement & Gravel Mix
14			Cement Storage
15			Storage
16			Receiving and Storage
17			Receiving and Storage
18			Receiving and Storage
19			Receiving and Storage



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